Pflügers Archiv
European Journal of Physiology

Vol. 414 1989

Field Editors

J. A. Bernards, Nijmegen
A. J. Brady, Los Angeles, CA
G. ten Bruggencate, München
E. E. Carmeliet, Leuven
R. Casteels, Leuven
P. Cerretelli, Geneva
C. de Rouffignac, Gif-sur-Yvette
J.-M. Dubois, Orsay
B. R. Duling, Charlottesville, VA
E. Frömter, Frankfurt (Main)
R. Greger, Freiburg
W. Hasselbach, Heidelberg
M. Imai, Tochigi
C. Jessen, Giessen
F. Kreuzer, Nijmegen
H. Kuriyama, Fukuoka
H. Murer, Zürich
O. H. Petersen, Liverpool
J. Piiper, Göttingen
R. S. Reneman, Maastricht
H. Seller, Heidelberg
H. Shimazu, Tokyo
E. Simon, Bad Nauheim
S. Thesleff, Lund
W. Trautwein, Homburg (Saar)
A. Trzebski, Warsaw
W. Ulbricht, Kiel
W. van Driessche, Leuven
E. M. Wright, Los Angeles, CA
J. A. Young, Sydney
W. G. Zijlstra, Groningen

Subject Editors

E. Gerlach, München
P. Deetjen, Innsbruck
O. Pompeiano, Pisa

Coordinating Editor

K. Thurau, München

Springer International

Pflügers Archiv · European Journal of Physiology

Founded in 1868 as „Pflügers Archiv für die gesamte Physiologie des Menschen und der Tiere" by *E. F. W. Pflüger.* Edited by *M. Verworn, E. Abderhalden, A. Bethe, R. Höber, A. v. Muralt, H. Rein* et al.

Published: Vol. 1–29 (1876) Cohen und Sohn, Bonn; Vol. 30–92 (1901) E. Strauß, Bonn; Vol. 93–170 (1917) M. Hager, Bonn; since Vol. 171 (1918) Springer, Berlin.

Since 1920 Pflügers Archiv has included: „Archiv für Physiologie" (Archiv für Anatomie und Physiologie, Physiologische Abteilung). Founded and edited by Johannes Müller, E. du Bois-Reymond, W. v. Waldeyer-Hartz et al. 1877–1914. Veit und Co., Leipzig, since 1915, Vereinigung Wissenschaftlicher Verleger, afterwards Walter de Gruyter, Berlin.

Copyright

Submission of a manuscript implies: that the work described has not been published before (except in the form of an abstract or as part of a published lecture, review, or thesis); that it is not under consideration for publication elsewhere; that its publication has been approved by all coauthors, if any, as well as by the responsible authorities at the institute where the work has been carried out; that, if and when the manuscript is accepted for publication, the authors agree to automatic transfer of the copyright to the publisher; and that the manuscript will not be published elsewhere in any language without the consent of the copyright holders.

All articles published in this journal are protected by copyright, which covers the exclusive rights to reproduce and distribute the article (e.g., as offprints), as well as all translation rights. No material published in this journal may be reproduced photographically or stored on microfilm, in electronic data bases, video disks, etc., without first obtaining written permission from the publisher.

The use of general descriptive names, trade names, trademarks, etc., in this publication, even if not specifically identified, does not imply that these names are not protected by the relevant laws and regulations.

While the advice and information in this journal is believed to be true and accurate at the date of its going to press, neither the authors, the editors, nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Special regulations for photocopies in the USA

Photocopies may be made for personal or in-house use beyond the limitations stipulated under Section 107 or 108 of U.S. Copyright Law, provided a fee is paid. This fee is US$ 0.20 per page, or a minimum of US$ 1.00 if an article contains fewer than five pages. All fees should be paid to the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, USA, stating the ISSN 0031-6768, the volume, and the first and last page numbers of each article copied. The copyright owner's consent does not include copying for general distribution, promotion, new works, or resale. In these cases, specific written permission must first be obtained from the publisher.

Springer-Verlag Berlin Heidelberg New York

Printers: Wiesbadener Graphische Betriebe GmbH, Wiesbaden

© Springer-Verlag GmbH & Co. KG, Berlin Heidelberg 1989

Printed in Germany

Contents of volume 414

No. 1 (pp 1–104) published May 29, 1989
No. 2 (pp 105–248) published June 20, 1989
No. 3 (pp 249–376) published July 3, 1989
No. 4 (pp 377–494) published July 26, 1989
No. 5 (pp 495–612) published August 28, 1989
No. 6 (pp 613–728) published September 13, 1989

Abstracts of the Sociedad Española de Ciencias Fisiológicas, XXIII National Congress, 8–10 December 1988, Puerto de la Cruz S 1–S 38

Abstracts of the Società Italiana di Fisiologia, XV Riunione Primaverile, 25–27 May, 1988, Firenze S 39–S 70

Abstracts of the Dutch Physiological Society, Young Physiologists Meeting, 26 April, 1989, Utrecht S 195–S 200

This volume contains a supplement with the Proceedings of the Rhône-Poulenc Santé Foundation: Potassium channels. Function, regulation and pharmacology in neuronal, muscular, secretory and immune system, 6th International Round Table, Paris, 23rd January, 1989 S 71–S 194

Aaronson PI: Estimation of high K- and noradrenaline-induced ^{45}Ca uptakes in isolated rat aorta: effects of washing in icecold solutions 579
Adams DJ → Freay A et al 377
Alt JM → Jonas E et al 634
Alvarez-Riera J → Velasco G et al 304
Amédée T → Honoré E et al 477
Amiel C → Di Stefano A et al 640
Aosaki T → Kasai H 145
Aosaki T, Kasai H: Characterization of two kinds of high-voltage-activated Ca-channel currents in chick sensory neurons. Differential sensitivity to dihydropyridines and ω-conotoxin GVIA 150
Arndt HJ → Kunzelmann K et al 391
Ashley CC → Ishii N et al 162

Bailly C → Di Stefano A et al 640
Ballantyne D → Lawson EE et al 523
Barros F → Velasco G et al 304
Basset G → Saumon G et al 340
Baumgärtl H, Heinrich U, Lübbers DW: Oxygen supply of the blood-free perfused guinea-pig brain in normo- and hypothermia measured by the local distribution of oxygen pressure 228
Beck C → Kunzelmann K et al 391
Beck F → Buchinger P et al 208
Bell CL → Joris L et al 369
Berrebi-Bertrand I → Chevalier B et al 311
Bjerregaard HF: Mechanism of calcium ionophore stimulated Cl secretion from frog skin glands 193
Blot-Chabaud M → Jaisser F et al 464
Bodewei R → Hering S et al 690
Boisseau S → Valmier J et al 360
Bonvalet JP → Jaisser F et al 464
Bormann J, Flügge G, Fuchs E: Effect of atrial natriuretic factor (ANF) on nicotinic acetylcholine receptor channels in bovine chromaffin cells 11
Bossu JL, Fagni L, Feltz A: Voltage-activated calcium channels in rat Purkinje cells maintained in culture 92
Bossu JL, Rodeau JL, Feltz A: Decay kinetics of calcium currents in rat sensory neurones: analysis at two internal free calcium concentrations 89
Bostrom TE → Field MJ et al 647
Bouchonnet F → Saumon G et al 340
Bouma P → van Beek et al 82
Bournaud R, Shimahara T, Garcia L, Rieger F: Appearance of the slow Ca conductance in myotubes from mutant mice with "muscular dysgenesis" 410
Braitsch R → Di Stefano A et al 640
Brown CDA → Dunk CR et al 701
Brunkhorst R → Jonas E et al 634
Brunner H → Misgeld U et al 139
Buchinger P, Wienecke P, Rick R, Beck F, Dörge A, Thurau K: Localization of transport compartments in turtle urinary bladder 208
Burton KA → Dauncey MJ 317
Bührer T → Kondo Y et al 663

Case RM → Steward MC et al 200
Casteels R → Missiaen L et al 423
Cavero I → Escande D et al 669
Chem M → Rüegg JC et al 282
Cheung YM → Leung AF et al 676
Chevalier B, Berrebi-Bertrand I, Mouas C, Lelièvre LG, Swynghedauw B: Diminished toxicity of ouabain in the hypertrophied rat heart 311
Chin W-P → Imai S et al 443
Clapham DE → Lewis DL 492
Cockayne DJH → Field MJ et al 647
Colomo F, Lombardi V, Piazzesi G: The recovery of tension on transients during steady lengthening of frog muscle fibers 245
Cook DL → Satin LS 1
Cooke R → Pate E 73
Crone C → Saumon G et al 340

Dacquet C → Honoré E et al 477
Dankó M → Nánási PP 157
Dauncey MJ, Burton KA: ^{3}H-Ouabain binding sites in porcine skeletal muscle as influenced by environmental temperature and energy intake 317
Dawson DC, Frizzell RA: Mechanism of active K^+ secretion by flounder urinary bladder 393
de Jonge B → Rook MB et al 95
de Lanerolle P → Obara K et al 134
de Rouffignac C → Di Stefano A et al 640
Declerck I → Missiaen L et al 423
Dekhuijzen AJ, Iezzi N, Hurlbut WP: A re-examination of the effects of lanthanum on the frog neuromuscular junction 683
Di Stefano A, Wittner M, Nitschke R, Braitsch R, Greger R, Bailly C, Amiel C, Elalouf JM, Roinel N, de Rouffignac C: Effects of glucagon on Na^+, Cl^-, Mg^{2+} and Ca^{2+} transports in cortical and medullary thick ascending limbs of mouse kidney 640
Donaldson SK → Gallant EM
Donaldson SK, Gallant EM, Huettemann DA: Skeletal muscle excitation-contraction coupling. I. Transverse tubule control of peeled fiber Ca^{2+}-induced Ca^{2+} release in normal and malignant hyperthermic muscles 15
Dörge A → Buchinger P et al 208
Droogmans G → Missiaen L et al 423
Duce IR → Seabrook GR et al 44
Dunk CR, Brown CDA, Turnberg LA: Stimulation of Cl/HCO_3 exchange in rat duodenal brush border membrane vesicles by cAMP 701

Edwards FA, Konnerth A, Sakmann B, Takahashi T: A thin slice preparation for patch clamp recordings from neurones of the mammalian central nervous system 600
Edwards C → Furuya K et al 118
Eguchi T → Minota S et al 249
Ehrenfeld J, Lacoste I, Harvey BJ: The key role of the mitochondria-rich cell in Na^+ and H^+ transport across the frog skin epithelium 59
Elalouf JM → Di Stefano A et al 640
Emmrich P → Kunzelmann K et al 391
Enomoto K → Furuya K et al 118
Escande D, Thuringer D, Le Guern S, Courteix J, Laville M, Cavero I: Potassium channel openers act through an activation of ATP-sensitive K^+ channels in guinea-pig cardiac myocytes 669

Fagni L → Bossu JL et al 92
Farman N → Jaisser F et al 464
Feldmeyer D: Effects of lanthanum on contractile inactivation and D600-induced paralysis in twitch muscle fibres of the frog 373
Feltz A → Bossu JL et al 89, 92
Field MJ, Bostrom TE, Seow F, György AZ, Cockayne DJH: Acute cisplatin nephrotoxicity in the rat. Evidence for impaired entry of sodium into proximal tubule cells 647
Finger W, Martin C: Quantal stores of excitatory transmitter in nerve-muscle synapses of crayfish evaluated from high-frequency asynchronous quantal release induced by veratridine or high concentrations of potassium 437
Flügge G → Bormann J et al 11

Freay A, Johns A, Adams DJ, Ryan US, Van Breemen C: Bradykinin and inositol 1,4,5-trisphosphate-stimulated calcium release from intracellular stores in cultured bovine endothelial cells 377
Frizzel RA → Dawson DC 393
Fromm M → Schulzke J-D et al 216
Frömter E → Kondo Y et al 663
Fuchs E → Bormann J et al 11
Furuya K, Enomoto K, Furuya S, Yamagishi S, Edwards C, Oka T: Single calcium-activated potassium channel in cultured mammary epithelial cells 118
Furuya S → Furuya K et al 118

Gaehtgens P → Tigno XT et al 450
Gallant EM → Donaldson SK et al 15
Gallant EM, Donaldson SK: Skeletal muscle excitation-contraction coupling. II. Plasmalemma voltage control of intact bundle contractile properties in normal and malignant hyperthermic muscles 24
Garcia L → Bournaud R et al 410
Gardner JP, Stout MA, Harris SR: Calmodulin loss in vascular smooth muscle following Triton X-100 or saponin skinning 484
Gascòn S → Velasco G et al 304
Gérard C → Penel C et al 509
Glitsch HG, Krahn T, Pusch H: The dependence of sodium pump current on internal Na concentration and membrane potential in cardioballs from sheep Purkinje fibres 52
Glitsch HG, Krahn T, Verdonck F: Activation of the Na pump current by external K and Cs ions in cardioballs from sheep Purkinje fibres 99
Golenhofen K → Lüdtke FE et al 558
Greger R → Di Stefano A et al 640
Greger R → Kunzelmann K et al 297, 391
Greger R → Schlatter E et al
Griffiths NM, Simmons NL, Rivier J: Vasoactive intestinal peptide stimulation of renal adenylate cyclase and antagonism by (4Cl-D-Phe^{6}Leu^{17})VIP 222
Grunewald RW, Kinne RKH: Intracellular sorbitol content in isolated rat inner medullary collecting duct cells. Regulation by extracellular osmolarity 178
Grunewald RW, Kinne RKH: Sorbitol metabolism in inner medullary collecting duct cells of diabetic rats 346
György AZ → Field MJ et al 647

Hagiwara G → Joris L et al 369
Harris SR → Gardner JP et al 484
Hartshorne DJ → Rüegg JC et al 282
Harvey BJ → Ehrenfeld J et al 59
Härtner K-T → Simoneau J-A et al 629
Hegel U → Schulzke J-D et al 216
Heinrich U → Baumgärtl H et al 228
Hering S, Kleppisch T, Timin EN, Bodewei R: Characterization of the calcium channel state transitions induced by the enantiomers of the 1,4-dihydropyridine Sandoz 202 791 in neonatal rat heart cells. A nonmodulated receptor model 690
Heuner A → Schwegler JS et al 543
Heuner A, Schwegler JS, Silbernagl S: Renal tubular transport of glutathione in rat kidney 551
Hodges RS → Rüegg JC et al 430
Holloway SF, Salgado VL, Wu CH, Narahashi T: Kinetic properties of single sodium channels modified by fenvalerate in mouse neuroblastoma cells 613
Honoré E, Amédée T, Martin C, Dacquet C, Mironneau C, Mironneau J: Calcium channel current and its sensitivity to (+)isradipine in cultured pregnant rat myometrial cells. An electrophysiological and a binding study 477
Huettemann DA → Donaldson SK et al 15
Hurlbut WP → Dekhuijzen AJ et al 683
Hwang JC → Leung AF et al 676

Iezzi N → Dekhuijzen AJ et al 683
Imai M → Shimizu T et al 500
Imai M → Yoshitomi K et al 457
Imai S, Chin W-P, Jin H, Nakazawa M: Production of AMP and adenosine in the interstitial fluid compartment of the isolated perfused normoxic guinea pig heart 443
Inoue Y, Xiong Z, Kitamura K, Kuriyama H: Modulation produced by nifedipine of the unitary Ba current of dispersed smooth muscle cells of the rabbit ileum 534
Irving SN → Seabrook GR et al 44
Ishii N, Simpson AWM, Ashley CC: Effects of 5-hydroxytryptamine (serotonin) and forskolin on intracellular free calcium in isolated and fura-2 loaded smooth-muscle cells from the anterior byssus retractor (catch) muscle of *Mytilus edulis* 162
Ito H → Kurachi Y et al 102

Jaisser F, Blot-Chabaud M, Pradelles P, Bonvalet JP, Farman N: Antidiuretic hormone reduces the high PGE_2 synthesis in papillary collecting duct of DI rats 464
Jensen BL → Skøtt O et al 651
Jin H → Imai S et al 443
Johns A → Freay A et al 377
Jonas E, Alt JM, Schurek HJ, Brunkhorst R, Stolte H: Study on the renal handling of sex dependent proteins in male rats studied by micropuncture techniques and by the isolated perfused rat kidney 634
Jongsma HJ → Rook MB et al 95
Joris L, Krouse ME, Hagiwara G, Bell CL, Wine JJ: Patch-clamp study of cultured human sweat duct cells: amiloride-blockable Na^+ channel 369
Josephson IR, Sperelakis N: Tetrodotoxin differentially blocks peak and steady-state sodium channel currents in early embryonic chick ventricular myocytes 354

Kanmura Y → Missiaen L et al 423
Kanosue K → Tamaki Y et al 495
Kasai H → Aosaki T 150
Kasai H, Aosaki T: Modulation of Ca-channel current by an adenosine analog mediated by a GTP-binding protein in chick sensory neurons 145
Katahira K, Mikami H, Tsunetoshi T, Kohara K, Otsuka A, Nagano M, Ogihara T: Increase in the blood pressure and decrease in the norepinephrine release in the ventrolateral medulla during intraventricular administration of hypertonic NaCl 719
Katayama Y → Morita K 171
Kaufmann M → Simoneau J-A et al 629
Kay CM → Rüegg JC et al 430
Kemp B → Rüegg JC et al 282
Kinne RKH → Grunewald RW 178, 346
Kitamura K → Inoue Y et al 534
Kleppisch T → Hering S et al 690
Knight DE → Maconochie DJ 589
Kohara K → Katahira K et al 719
Kondo Y, Bührer T, Seiler K, Frömter E, Simon W: A new double-barrelled, ionophore-based microelectrode for chloride ions 663
Konnerth A → Edwards FA et al 600
Korczyńska I → Tuganowski W et al 351
Krahn T → Glitsch HG et al 52, 99
Krosser BI → Sinton CM et al 31
Krouse ME → Joris L et al 369
Kuba K → Minota S et al 249
Kuba K, Tanaka E, Kumamoto E, Minota S: Patch clamp experiments on nicotinic acetylcholine receptor-ion channels in bullfrog sympathetic ganglion cells 105
Kumamoto E → Kuba K et al 105
Kumamoto E: Synaptic potentials induced by postganglionic stimulations in cat bladder parasympathetic neurones 235
Kunzelmann K, Pavenstädt H, Beck C, Ünal Ö, Emmrich P, Arndt HJ, Greger R: Characterization of potassium channels in respiratory cells. I. General properties 391
Kunzelmann K, Pavenstädt H, Greger R: Characterization of potassium channels in respiratory cells. II. Inhibitors and regulation 297
Kurachi Y, Ito H, Sugimoto T, Shimizu T, Miki I, Ui M: Alfa-adrenergic activation of the muscarinic K^+ channel is mediated by arachidonic acid metabolites 102
Kuriyama H → Inoue Y et al 534
Kurozumi N → Shimamura K et al 37

Lacoste I → Ehrenfeld J et al 59
Lalley PM → Lawson EE et al 523
Lawson EE, Richter DW, Ballantyne D, Lalley PM: Peripheral chemoreceptor inputs to medullary inspiratory and postinspiratory neurons of cats 523
Le Guern S → Escande d et al 669
Courteix J → Escande D et al 669
Laville M → Escande D et al 669
Lelièvre LG → Chevalier B et al 311
Leung AF, Cheung YM, Hwang JC: Light diffraction intensity from muscle fibres in different osmotic solutions: measurement of equilibration time 676

Lewis DL, Clapham DE: Somatostatin activates an inwardly rectifying K^+ channel in neonatal rat atrial cells 492
Ley K → Tigno XT et al 450
Li A-Y → Rüegg JC et al 282
Llinás RR → Sinton CM et al 31
Lombardi V → Colomo F 245
Lönnendonker U → Woll KH et al 622
Lübbers DW → Baumgärtl H et al 228
Lüdtke FE, Müller H, Golenhofen K: Direct effects of motilin on isolated smooth muscle from various regions of the human stomach 558

Maconochie DJ, Knight DE: A method for making solution changes in the sub-millisecond range at the tip of a patch pipette 589
Marchetti J → Taniguchi S 125
Marcus DC → Wangemann P et al 656
Martin C → Finger W 437
Martin C → Honoré E et al 477
Mauchamp J → Penel C et al 509
Mezio A → Szczupak L et al 584
Mikami H → Katahira K et al 719
Miki I → Kurachi Y et al 102
Miledi R → Reiser G et al 113
Minota S → Kuba K et al 105
Minota S, Eguchi T, Kuba K: Nicotinic acetylcholine receptor-ion channels involved in synaptic currents in bullfrog sympathetic ganglion cells and effects of atropine 249
Mironneau C → Honoré E et al 477
Mironneau J → Honoré E et al 477
Misgeld U, Müller W, Brunner H: Effects of (−)baclofen on inhibitory neurons in the guinea pig hippocampal slice 139
Missiaen L, Kanmura Y, Wuytack F, Raeymaekers L, Declerck I, Droogmans G, Casteels R: AlF_4^- inhibits the accumulation of Ca in the endoplasmic reticulum in intact myometrial strips, but not in the rabbit ear artery 423
Miyamoto S → Murakami M et al 385
Morel F → Taniguchi S 125
Morii M → Sakai H et al 185
Morita K, Katayama Y: Calcium-dependent slow outward current in visceral primary afferent neurones of the rabbit 171
Mouas C → Chevalier B et al 311
Murakami M, Suzuki E, Miyamoto S, Seo Y, Watari H: Direct measurement of K movement by ^{39}K NMR in perfused rat mandibular salivary gland stimulated with acetylcholine 385
Müller H → Lüdtke FE et al 558
Müller W → Misgeld U et al 139

Nagano M → Katahira K et al 719
Nakayama T → Tamaki Y et al 495
Nakazawa M → Imai S et al 443
Nánási PP, Dankó M: Paradox response of frog muscle membrane to changes in external potassium 157
Narahashi T → Holloway SF et al 613
Neumcke B → Woll KH et al 622
Nishio A → Yoshino M et al 401
Nitschke R → Di Stefano A et al 640
Novak I, Young JA: Acetate stimulates secretion in the rabbit mandibular gland 68

Obara K, Takai A, Rüegg JC, de Lanerolle P: Okadaic acid, a phosphatase inhibitor, produces a Ca^{2+} and calmodulin-independent contraction of smooth muscle 134
Ogihara T → Katahira K et al 719
Ohya Y, Sperelakis N: Modulation of single slow (L-type) calcium channels by intracellular ATP in vascular smooth muscle cells 257
Okada Y → Sakai H et al 185
Oka T → Furuya K et al 118
Otsuka A → Katahira K et al 719
Oude Egbrink MGA, Tangelder GJ, Slaaf DW, Reneman RS: Effect of blood gases and pH on thromboembolic reactions in rabbit mesenteric microvessels 324
Oude Vrielink HHE, Slaaf DW, Tangelder GJ, Reneman RS: Changes in vasomotion pattern and local arteriolar resistance during stepwise pressure reduction 571

Pate E, Cooke R: Addition of phosphate to active muscle fibers probes actomyosin states within the powerstroke 73
Paul RJ → Rüegg JC et al 282
Pavenstädt H → Kunzelmann K et al 297, 391
Penel C, Gérard C, Mauchamp J, Verrier B: The thyroid cell monolayer in culture. A tight sodium absorbing epithelium 509
Persson AEG → Schlatter E et al
Petersen K-U → Wehner F et al 381
Pette D → Simoneau J-A et al 629
Piątek G → Tuganowski W et al 351
Piazzesi G → Colomo F 245
Pohl J-A: Recovery from charge immobilization in sodium channels of the frog node of Ranvier 516
Pradelles P → Jaisser F et al 464
Pries AR → Tigno XT et al 450
Prieto M → Velasco G et al 304
Pusch H → Glitsch HG et al 52

Raeymaekers L → Missiaen L et al 423
Reiser G, Uchitel O, Miledi R: Neuronal control of extrajunctional acetylcholine receptor-channels induced by injury in frog skeletal muscle fibres 113
Reneman RS → Oude Egbrink MGA et al 324
Reneman RS → Oude Vrielink HHE et al 571
Richter DW → Lawson EE et al 523
Rick R → Buchinger P et al 208
Riecken E-O → Schulzke J-D et al 216
Rieger F → Bournaud R et al 410
Rivier J → Griffiths NM et al 222
Rodeau JL → Bossu JL et al 89
Roinel N → Di Stefano A et al 640
Rook MB, Jongsma HJ, de Jonge B: Single channel currents of homo- and heterologous gap junctions between cardiac fibroblasts and myocytes 95
Rüegg JC, Wojciechowski R: An oil-well method for time-resolved microfluorescence assays 597
Rüegg JC, Zeugner C, Strauss JD, Paul RJ, Kemp B, Chem M, Li A-Y, Hartshorne DJ: A calmodulin-binding peptide relaxes skinned muscle from guinea-pig taenia coli 282
Rüegg JC, Zeugner C, Van Eyk J, Kay CM, Hodges RS: Inhibition of TnI-TnC interaction and contraction of skinned muscle fibres by the synthetic peptide TnI [104–115] 430
Rüegg JC → Obara K et al 134
Ryan US → Freay A et al 377

Sakai H, Okada Y, Morii M, Takeguchi N: Anion and cation channels in the basolateral membrane of rabbit parietal cells 185
Sakmann B → Edwards FA et al 600
Salgado VL → Holloway SF et al 613
Salomonsson M → Schlatter E et al
Sandle GI: Segmental heterogeneity of basal and aldosterone-induced electrogenic Na transport in human colon 706
Satin LS, Cook DL: Calcium current inactivation in insulin-secreting cells is mediated by calcium influx and membrane depolarization 1
Saumon G, Basset G, Bouchonnet F, Crone C: Cellular effects of β-adrenergic and of cAMP stimulation on potassium transport in rat alveolar epithelium 340
Schettino T: Transport properties of the basolateral membrane of the oxyntic cells in frog fundic gastric mucosa 469
Schlatter E, Salomonsson M, Persson AEG, Greger R: Macula densa cells sense luminal NaCl concentration via furosemide sensitive $Na^+2Cl^-K^+$ cotransport 286
Schmidtmayer J: Voltage and temperature dependence of normal and chemically modified inactivation of sodium channels. Quantitative description by a cyclic three-state model 273
Schoen HF: Secretagogues increase apical membrane conductance of isolated bullfrog corneal epithelium pretreated with loop diuretics 713
Schulzke J-D, Fromm M, Hegel U, Riecken E-O: Ion transport and enteric nervous system (ENS) in rat rectal colon: Mechanical stretch causes electrogenic Cl-secretion via Plexus Meissner and amiloride-sensitive electrogenic Na-absorption is not affected by intramural neurons 216
Schurek HJ → Jonas E et al 634
Schwegler JS → Heuner A et al 551
Schwegler JS, Heuner A, Silbernagl S: Electrogenic transport of neutral and dibasic amino acids in a cultured opossum kidney cell line (OK) 543
Seabrook GR, Duce IR, Irving SN: Spontaneous and evoked quantal neurotransmitter release at the neuromuscular junction of the larval housefly, *Musa domestica* 44

Seiler K → Kondo Y et al 663
Seow F → Field MJ et al 647
Seo Y → Murakami M et al 385
Seo Y → Steward MC et al 200
Shimahara T → Bournaud R et al 410
Shimamura K, Kurozumi N, Yamamoto K, Sunano S: Electrical and mechanical properties of spontaneous contraction in hypertensive rat portal vein 37
Shimizu T, Yoshitomi K, Taniguchi J, Imai M: Effect of high NaCl intake on Na^+ and K^+ transport in the rabbit distal convoluted tubule 500
Shimizu T → Kurachi Y et al 102
Shimizu T → Yoshitomi K et al 457
Siemen D → Weber A 564
Silbernagl S → Heuner A et al 551
Silbernagl S → Schwegler JS et al 543
Simmons NL → Griffiths NM et al 222
Simon W → Kondo et al 663
Simoneau J-A, Kaufmann M, Härtner K-T, Pette D: Relations between chronic stimulation-induced changes in contractile properties and the Ca^{2+}-sequestering system of rat and rabbit fast-twitch muscles 629
Simonneau M → Valmier J et al 360
Simpson AWM → Ishii N et al 162
Sinton CM, Krosser BI, Walton KD, Llinás RR: The effectiveness of different isomers of octanol as blockers of harmaline-induced tremor 31
Siri LN → Szczupak L et al 584
Skøtt O, Jensen BL: Influence of bicarbonate on the sensitivity of renin release to sodium chloride 651
Slaaf DW → Oude Egbrink MGA et al 324
Slaaf DW → Oude Vrielink HHE et al 571
Someya T → Yoshino M et al 401
Sperelakis N → Josephson IR 354
Sperelakis N → Ohya Y 257
Steele JA: Voltage- and time-dependent chloride currents in chick skeletal muscle cells grown in tissue culture 265
Steward MC, Seo Y, Case RM: Intracellular pH during secretion in the perfused rabbit mandibular salivary gland measured by ^{31}P NMR spectroscopy 200
Stolte H → Jonas E et al 634
Stout MA → Gardner JP et al 484
Strauss JD → Rüegg JC et al 282
Sugimoto T → Kurachi Y et al 102
Sunano S → Shimamura K et al 37
Suzuki E → Murakami M et al 385
Swynghedauw B → Chevalier B et al 311
Szczupak L, Siri LN, Mezio A, Uchitel OD: Electrical properties of normal, denervated and organ-cultured slow fibres of toad cruralis muscles 584
Takahashi T → Edwards FA et al 600
Takai A → Obara K et al 134
Takeguchi N → Sakai H et al 185
Tamaki Y, Nakayama T, Kanosue K: Effects of peripheral chemo- and baro-receptor denervation on responses of preoptic thermosensitive neurons to inspired CO_2 495
Tanaka E → Kuba K et al 105
Tangelder GJ → Oude Egbrink MGA et al 324
Tangelder GJ → Oude Vrielink HHE et al 571
Taniguchi J → Shimizu T et al 500
Taniguchi J → Yoshitomi K et al 457
Taniguchi S, Marchetti J, Morel F: Cytosolic free calcium in single microdissected rat cortical collecting tubules 125
Thurau K → Buchinger P et al 208
Thuringer D → Escande D et al 669
Tigno XT, Ley K, Pries AR, Gaehtgens P: Venulo-arteriolar communication and propagated response. A possible mechanism for local control of blood flow 450
Timin EN → Hering S et al 690
Tsunetoshi T → Katahira K et al 719
Tuganowski W, Korczyńska I, Wasik K, Piątek G: Effects of calmidazolium and dibutyryl cyclic AMP on the longitudinal internal resistance in sinus node strips 351
Turnberg LA → Dunk CR et al 701

Uchitel OD → Szczupak L et al 584
Uchitel O → Reiser G et al 113
Ünal Ö → Kunzelmann K et al 391
Ui M → Kurachi Y et al 102
Usuki T → Yoshino M et al 401

Valmier J, Simonneau M, Boisseau S: Expression of voltage-dependent sodium and transient potassium currents in an identified sub-population of dorsal root ganglion cells acutely isolated from 12-day-old mouse embryos 360
van Beek, JHGM, Bouma P, Westerhof N: Oxygen uptake in saline-perfused rabbit heart is decreased to a similar extent during reductions in flow and in arterial oxygen concentration 82
Van Breemen C → Freay A et al 377
Van Eyk J → Rüegg JC et al 430
Velasco G, Prieto M, Alvarez-Riera J, Gascòn S, Barros F: Characteristics and regulation of a high conductance anion channel in GBK kidney epithelial cells 304
Verdonck F → Glitsch HG et al 99
Verrier B → Penel C et al 509

Walton KD → Sinton CM et al 31
Wangemann P, Marcus DC: Membrane potential measurements of transitional cells from the crista ampullaris of the Gerbil. Effects of barium, quinidine, quinine, tetraethylammonium, cesium, ammonium, thallium and ouabain 656
Wasik K → Tuganowski W et al 351
Watari H → Murakami M et al 385
Weber A, Siemen D: Permeability of the non-selective channel in brown adipocytes to small cations 564
Wehner F, Winterhagen JM, Petersen K-U: Selective blockage of cell membrane K conductance by an antisecretory agent in guinea-pig gallbladder epithelium 331
Westerhof N → van Beek et al 82
Wienecke P → Buchinger P et al 208
Wine JJ → Joris L et al 369
Winterhagen JM → Wehner F et al 381
Wittner M → Di Stefano A et al 640
Wojciechowski R → Rüegg JC 597
Woll KH, Lönnendonker U, Neumcke B: ATP-sensitive potassium channels in adult mouse skeletal muscle: Different modes of blockage by internal cations, ATP and tolbutamide 622
Wong BS: Quinidine blockade of calcium-activated potassium channels in dissociated gastric smooth muscle cells 416
Wu CH → Holloway SF et al 613
Wuytack F → Missiaen L et al 423

Xiong Z → Inoue Y et al 534

Yabu H → Yoshino M et al 401
Yamagishi S → Furuya K et al 118
Yamamoto K → Shimamura K et al 37
Yazawa K → Yoshino M et al 401
Yoshino M, Someya T, Nishio A, Yazawa K, Usuki T, Yabu H: Multiple types of voltage-dependent Ca channels in mammalian intestinal smooth muscle cells 401
Yoshitomi K → Shimizu T et al 500
Yoshitomi K, Shimizu T, Taniguchi J, Imai M: Electrophysiological characterization of rabbit distal convoluted tubule cell 457
Young JA → Novak I 68

Zeugner C → Rüegg JC et al 282, 430